



# SB5100

**DIODE**

## 5.0A SCHOTTKY BARRIER RECTIFIER

### DESCRIPTION

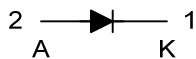
The UTC **SB5100** is a 5.0A schottky barrier rectifier, it uses UTC's advanced technology to provide customers with high surge capability, high current capability and high efficiency, etc.

The UTC **SB5100** is suitable for use in free wheeling, high frequency inverters, low voltage and polarity protection applications.

### FEATURES

- \* High current capability
- \* High surge capability
- \* Low power loss
- \* High efficiency

### SYMBOL

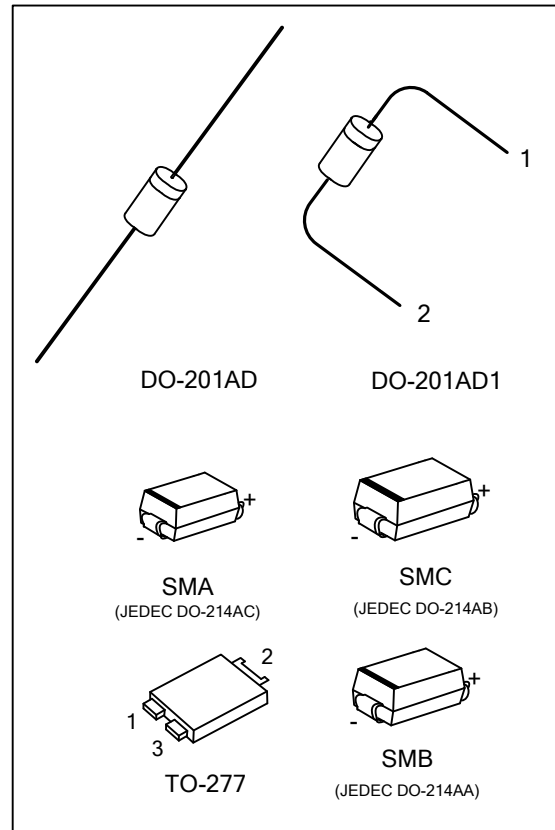


### ORDERING INFORMATION

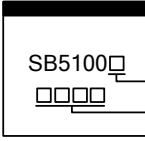
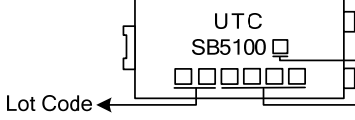
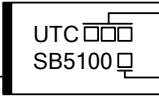
Ordering Number		Package	Pin Assignment			Packing
Lead Free	Halogen Free		1	2	3	
SB5100L-Z21D-B	SB5100G-Z21D-B	DO-201AD	K	A	-	Tape Box
SB5100L-Z21D1-B	SB5100G-Z21D1-B	DO-201AD1	K	A	-	Tape Box
SB5100L-T27-R	SB5100G-T27-R	TO-277	A	K	A	Tape Reel
SB5100L-SMA-R	SB5100G-SMA-R	SMA	K	A	-	Tape Reel
SB5100L-SMB-R	SB5100G-SMB-R	SMB	K	A	-	Tape Reel
SB5100L-SMC-R	SB5100G-SMC-R	SMC	K	A	-	Tape Reel

Note: Pin Assignment: A: Anode K: Cathode

<p>SB5100G-Z21D1-R</p> <p>(1)Packing Type (2)Package Type (3)Green Package</p>	<p>(1) R: Tape Reel, B: Tape Box (2) Z21D: DO-201AD, Z21D1: DO-201AD1, T27: TO-277, SMA: SMA, SMB: SMB, SMC: SMC (3) G: Halogen Free and Lead Free, L: Lead Free</p>
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■ MARKING

PACKAGE	MARKING
DO-201AD	 <p>             Cathode Band for uni-directional Only              L: Lead Free              G: Halogen Free              Date Code         </p>
TO-277	 <p>             L: Lead Free              G: Halogen Free              Lot Code              Data Code         </p>
SMA / SMB / SMC	 <p>             Cathode Band for uni-directional Only              Date Code              L: Lead Free              G: Halogen Free         </p>

■ ABSOLUTE MAXIMUM RATINGS ( $T_A=25^{\circ}\text{C}$  unless otherwise specified)

Single phase, half wave, 60Hz, resistive or inductive load.

For capacitance load, derate current by 20%.

PARAMETER	SYMBOL	RATINGS	UNIT
DC Blocking Voltage	$V_R$	100	V
Working Peak Reverse Voltage	$V_{RWM}$	100	V
Peak Repetitive Reverse Voltage	$V_{RRM}$	100	V
RMS Reverse Voltage	$V_{R(RMS)}$	70	V
Average Rectified Output Current	$I_O$	5.0	A
Non-Repetitive Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load (JEDEC Method)	$I_{FSM}$	150	A
Operating Junction Temperature	$T_J$	-65 ~ +150	$^{\circ}\text{C}$
Storage Temperature	$T_{STG}$	-65 ~ +150	$^{\circ}\text{C}$

Note: Absolute maximum ratings are those values beyond which the device could be permanently damaged.

Absolute maximum ratings are stress ratings only and functional device operation is not implied.

■ THERMAL DATA

PARAMETER	SYMBOL	RATINGS	UNIT
Junction to Ambient	DO-201AD	40	$^{\circ}\text{C}/\text{W}$
	DO-201AD1		
	TO-277		
	SMA/SMB/SMC		

■ ELECTRICAL CHARACTERISTICS ( $T_A=25^{\circ}\text{C}$  unless otherwise specified.)

Single phase, half wave, 60Hz, resistive or inductive load.

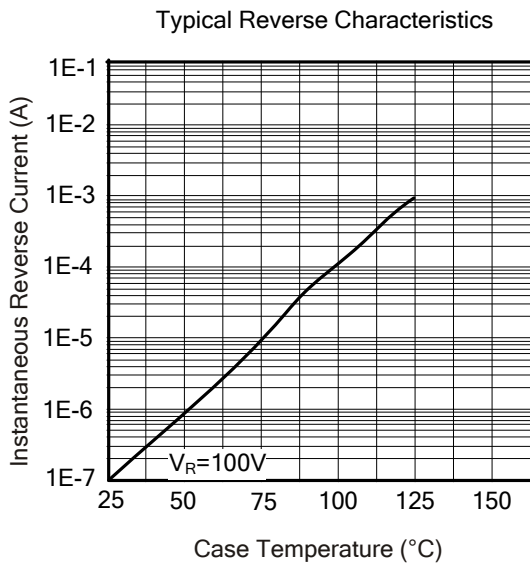
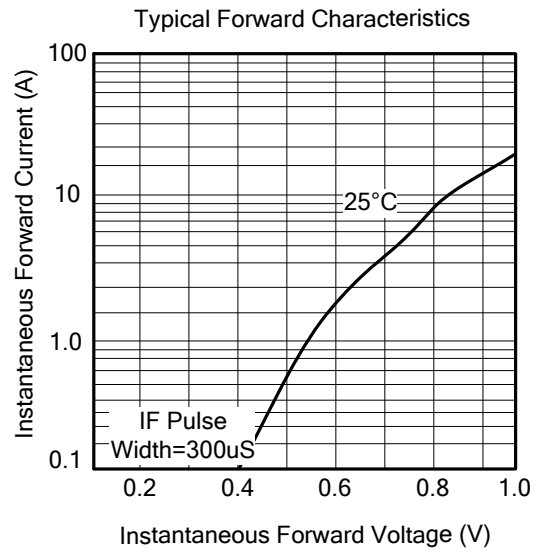
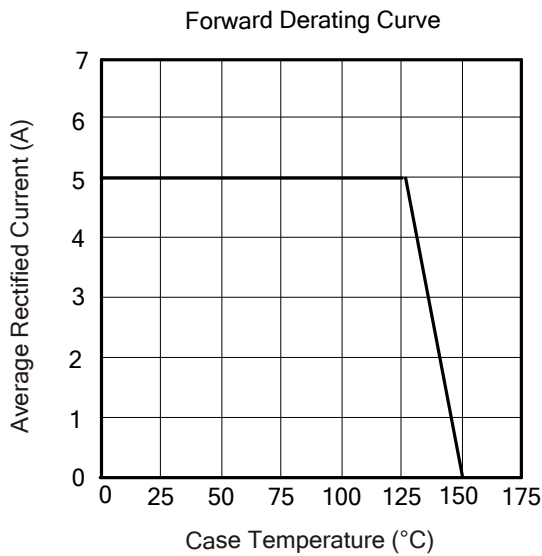
For capacitance load, derate current by 20%.

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Reverse Breakdown Voltage (Note 1)	$V_{(BR)R}$	$I_R=0.50\text{mA}$	100			V
Forward Voltage Drop	$V_{FM}$	$I_F=5\text{A}, T_J=25^{\circ}\text{C}$			0.80	V
		$I_F=5\text{A}, T_J=125^{\circ}\text{C}$			0.75	V
Leakage Current (Note 1)	$I_{RM}$	$V_R=100\text{V}, T_A=25^{\circ}\text{C}$			500	$\mu\text{A}$
		$V_R=100\text{V}, T_A=125^{\circ}\text{C}$			50	mA

Notes: 1. Short duration pulse test used to minimize self-heating effect.

2. Thermal resistance junction to case mounted on heatsink.

■ TYPICAL CHARACTERISTICS



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